CW#90: Solving Right Triangles Pt I

Geometry

Classroom Copy- Do not write on!

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| Objective | * You will be able to find missing angles using inverse trig and given sides of a right triangle. |
| Essential Question | * In a right triangle, how can you find all the sides and all the angles of the triangle? |
| Criteria for Success | Did you…   * Correctly identify the sides (opposite, adjacent, hypotenuse)? * Use the correct trig ratio? * Analyze your answer: Does it make sense? Did you answer the question completely? |

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| USING INVERSE TANGENTS Use a calculator to approximate the measure of *∠A* to the nearest tenth of a degree. | |
| ../../../../../Desktop/Screen%20Shot%202016-02-20%20at%203.40.17%20PM 1. | ../../../../../Desktop/Screen%20Shot%202016-02-20%20at%203.40.22%20PM2. |
| USING INVERSE SIN AND COS Use a calculator to approximate the measure of *∠A* to the nearest tenth of a degree. | |
| ../../../../../Desktop/Screen%20Shot%202016-02-20%20at%203.43.31%20PM3. | ../../../Desktop/Screen%20Shot%202016-02-20%20at%203.43.27%20PM.png4. |
| 5.Decide which of the following equations could be ued on triangle JLK below and explain why you chose your answer.  A.  ../../../../../Desktop/Screen%20Shot%202016-02-20%20at%203.43.41%20PMB.  C.  D. A. | |
| ERROR ANALYSIS *Describe* and correct the student’s error in using an inverse trig ratio. | |
| 6. ../../../../../Desktop/Screen%20Shot%202016-02-20%20at%203.44.01%20PM | 7. ../../../../../Desktop/Screen%20Shot%202016-02-20%20at%203.44.05%20PM |

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| 8. Solve the following right triangle. (Find all missing sides and angles) | 9. Solve the following right triangle. (Find all missing sides and angles) |
| 10. Solve the triangle. (Find all missing sides and angles). Round decimal answers to the nearest tenth. | 11. You are building a track for a model train. You want the track to incline from the first level to the second level, 4 inches higher, in 96 inches. Is the angle of elevation less than 3°? | |
| 12. You lean a 20 foot ladder against a wall. The base of the ladder is 4 feet from the wall. What angle θdoes the ladder make with the ground? | 13. You are standing 350 feet away from a skyscraper that is 750 feet tall. What is the angle of elevation from you to the top of the building? | |
| 13. You attend a music concert with some friends and sit halfway up the bleachers in the arena. The angle of depression from your horizontal line of sight to the stage is 24°. If your seat is 45 feet above stage level, what is your actual distance *d* from the stage? Round to the nearest foot. | 14. The angle of depression from the tee box to the green is 10° on a par 3, 185 yard hole. How much higher is the tee box than the green? Round to the nearest yard. | |